

Amendments to the Claims:

This listing of Claims will replace all prior versions and listings of Claims in the Application.

Listing of Claims:

Please Amend the Claims as Follows:

Claim 1 (original): A method for fabricating composite thin films comprising the steps of:

- (a) depositing a chemical precursor solution onto a suitable substrate and forming a wet film of Ta₂O₅;
- (b) baking said wet film which was deposited on suitable substrate and removing organics present in said solution;
- (c) forming a continuous Ta₂O₅ thin film on said substrate;
- (d) baking said continuous Ta₂O₅ thin film deposited on substrate under ambient conditions;
- (e) repeating steps (c) and (d) and obtaining a desired thickness of said thin film;
- and
- (f) annealing said continuous Ta₂O₅ thin film deposited on said substrate at varying temperatures, times and oxygen flow rates and forming said thin film-substrate heterostructure having high dielectric constants and low dielectric loss at microwave frequencies.

Claim 2 (original): A method for fabricating composite thin films in claim 1 further comprising the step of selecting precursor compounds and solvents and forming said chemical precursor solution.

Claim 3 (original): A method for fabricating composite thin films in claim 2 further comprising the step of dissolving said precursor compounds in said solvents and forming a homogenous solution.

Claim 4 (original): A method for fabricating composite thin films in claim 3 further comprising the step of hydrolyzing and polycondensating said precursor solution and stabilizing said precursor solution.

Claim 5 (original): A method for fabricating composite thin films in claim 4 further comprising the step of utilizing ambient conditions during said step (b).

Claim 6 (original): A method for fabricating composite thin films in claim 4, further comprising the step of controlling ambient conditions during said step (b).

Claim 7 (original): A method for fabricating composite thin films in claim 4, further comprising the step of drying said thin film between steps (a) and (b).

Claims 8-14 (cancelled)